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ABSTRACT

The effectiveness of three teaching techniques used by native speakers with students of English as a second language was studied. The three techniques were presenting a word in isolation, in combination with a picture, and in a sentence. The study included a 24-hour interval between teaching and testing to determine which method was more effective in word retention. All subjects were Spanish-speaking adolescents and adults. The use of pictures facilitated the identification of target words in initial learning situations. However, for retention purposes, presentation of the new word in a sentence context was the superior method. Also for retention purposes, presenting the word in isolation was superior to presenting the word with a picture. It is suggested that teachers and curriculum designers should consider a combination of pictures and contextual presentation of new words for non-English speaking students. (RW)

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LEARNING OF NOUNS UNDER THREE TREATMENTS WITH STUDENTS OF ENGLISH AS A SECOND LANGUAGE

A paper presented at
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LEARNING OF NOUNS UNDER THREE TREATMENTS
WITH STUDENTS OF ENGLISH AS A
SECOND LANGUAGE

English as a second language is a relatively new teaching specialization at colleges and universities in the United States. Consequently, a limited body of research data relevant to English as a second language is available. More specifically, researchers have given little attention to how students learn to recognize and remember vocabulary words even though pronunciation of a new language system is considered an initial problem. Accordingly, institutions may be using teaching methods not substantiated by research.

Therefore, in order to plan research involving word recognition by second language students, techniques used for native speakers of English were considered. Three of these teaching/learning techniques include presenting a word in isolation, in combination with a picture, and in a sentence.

The purpose of this study was to investigate the effectiveness of these three techniques used for native speakers with students of English as a second language. The study included a 24 hour interval between teaching and testing to determine which method was most effective in retention of words. An index of reading was established through a cloze test written in Spanish to provide an indication of the subject's literacy in his native language.

Subjects for the study were selected from entering students at a southern state university's intensive English program. All subjects were Spanish-speaking adolescents and adults from Central and South American countries. The subjects were pretested on the target words used in the study. Students who could identify any target word were eliminated from the study. After screening, the students were randomly assigned to three treatment groups with 30 students in each of the three groups.

It was hypothesized that a significant difference existed between the criterion variable of word recognition scores (established through teaching and testing) and the predictor variables of presenting words in isolation, in combination with a picture, and in sentence while holding constant the variable of indexing of reading.

Procedures

The technique of trials to criterion in vocabulary studies was used for teaching and testing. Target words, limited to nouns which could be pictorially represented, were presented individually until all were pronounced correctly. The number of tr als for correct pronunciation represented a score for each word. The examiner could provide assistance during this teaching/learning test. However, no cues or feedback of any kind accompanied the words during the test trials which were given 24 hours later. The number of correct responses provided the test score.

Results

Means and standard deviations were computed to yield a descriptive explanation of each of the variables included in the study. A listing of these descriptive computations is presented in Table 1. The two criterion variables were study trial scores (the number of trials necessary to reach the criterion of one perfect trial) and test trial scores (items correctly pronounced 24 hours after study trials). A measure of reading index was considered the covariate used to equate the groups statistically on a known variable believed to affect the criterion variables.

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Enter Table 1

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The first three variables in Table 1 reflect experimental group membership in one of the three presentation conditions. Study trial scores ranged from a minimum of 3 trials for correct pronunciation to a maximum of 12 trials necessary for correct pronunciation. Delayed retention scores ranged from a minimum of no errors in pronunciation to a maximum of 5 errors in pronunciation.

Multiple regression analysis was used to determine the significance of the existing differences between word recognition scores under three methods of instruction: (a) word in isolation, (b) in combination with a picture, and (c) in a sentence. Word recognition was measured in two modes, first by study trial scores and second by delayed retention test trial scores. A rejection

level of .05 was used to demonstrate significance.

A significant relationship was shown to exist between the three methods of presentation and study trial scores. Although a significant relationship was shown, further analysis was necessary to find the most effective method. The results of the post hoc comparison indicated that presenting the word with a picture was significantly better than presenting the word in isolation or presenting the word in sentence context on study trial scores for students of English as a second language. The results further indicated that presenting the word in isolation was a significantly better method than presenting the word in sentence context. Table 2 presents the descriptive data from this comparison.

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Enter Table 2

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A significant relationship also existed between test trial scores and the three methods of presentation. Again, a post hoc comparison was conducted to determine where significant differences existed. The results of the additional comparisons indicated that presenting the word in sentence was significantly better on retention of vocabulary than presenting the word in isolation or the word with a picture for adult students of English as a second language. The comparisons further indicated that presenting the word in isolation was a significantly better method for retention of words than presenting the word with a picture. Table 3 presents the descriptive data from this comparison.

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Enter Table 3

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Conclusion

The study was undertaken to determine if one of the three teaching/learning techniques would be superior in word recognition for students of English as a second language. The results of the study indicated that the use of pictures facilitated the identification of target word in initial learning situations. However, for retention purposes, it appears that word in sentence context is a superior method of presenting new words. This suggests that perhaps teachers and curriculum designers should consider a combination of pictures and contextual presentation of new words for non-English-speaking students.

Table 1

Means and Standard Deviations for the Variables

Variables	4. Study trials		5. Test trials		6. Reading index	
	Means	S. D.	Means	S. D.	Means	S. D.
1. Word with picture (N = 30)	6.00	2.1656	1.90	1.3222	24.83	3.9574
2. Word in isolation (N = 30)	7.33	2.7729	1.60	1.2806	23.23	5.4996
3. Word in sentence (N = 30)	7.37	2.3164	1.50	1.3601	27.80	4.8949

Table 2

Multiple Regression Models Showing Relationship of Predictor Variables of Word in Isolation, Word with Picture, and Word in Sentence with the Criterion Variable of Study Trial Scores when Reading Index Is Held Constant

Variables	Full Model		Restricted Model	
	Rank	RSQ	Rank	RSQ
Reading index	1	.2960	1	.2960
Word in sentence	2	.4113	. .[b]	
Word with picture	3	.4252	. .[b]	
Word in isolation	. .[a]		. .[b]	

	Full		Restricted
Multiple R	.6552		.5441
Total RSQ[c]	.4292		.2960
Difference		.1332	
df		2/86	
F Ratio		10.037	
Probability		.0003	

[a] Did not appear in the iteration sequence.

[b] Excluded from the restricted model.

[c] Listing in table discontinued when predictors began to repeat.

Table 3

Multiple Regression Models Showing Relationship of Predictor Variables of Word in Isolation, Word with Picture, and Word in Sentence with the Criterion Variable of Test Trial Scores when Reading Index Is Held Constant

Variables	Full Model		Restricted Model	
	Rank	RSQ	Rank	RSQ
Reading index	1	.3497	1	.3497
Word in isolation	2	.3940	. .[b]	
Word with picture	3	.3947	. .[b]	
Word in sentence	. .[a]		. .[b]	

	Full	Restricted
Multiple R	.6284	.5913
Total RSQ[c]	.3949	.3497
Difference	.0452	
df	2/86	
F Ratio	3.213	
Probability	.0438	

[a] Did not appear in the iteration sequence.

[b] Excluded from the restricted model.

[c] Listing in table discontinued when predictors began to repeat.